

12. The optical system of claim **1**, wherein the prism has a first Abbe number and wherein the grating medium has a second Abbe number that is different from and within 30 of the first Abbe number.

13. An optical system comprising:

a waveguide having first and second waveguide substrates and a grating medium between the first and second waveguide substrates;

a prism on the first waveguide substrate and configured to couple light into the grating medium through the first waveguide substrate, wherein the prism comprises:

a first wedge mounted to a surface of the first waveguide substrate, the first wedge having a first index of refraction, and

a second wedge mounted to a surface of the first wedge, wherein the second wedge has a second index of refraction that is different from the first index of refraction, and wherein the surface of the first wedge is curved; and

a holographic optical element in the grating medium and configured to diffract, out of the waveguide, the light coupled into the grating medium by the prism.

14. The optical system of claim **13**, wherein the surface of the first wedge has a spherical curvature.

15. The optical system of claim **14**, wherein the surface of the first wedge has a freeform curvature.

16. The optical system of claim **13**, wherein the surface of the first wedge has a curvature that imparts an optical power to the light.

17. The optical system of claim **13**, wherein the prism has a first Abbe number and wherein the grating medium has a second Abbe number that is different from and within 30 of the first Abbe number.

18. An optical system comprising:

a waveguide having first and second waveguide substrates and a grating medium between the first and second waveguide substrates;

a prism on the first waveguide substrate and configured to couple light into the grating medium through the first waveguide substrate, wherein the prism comprises:

a first wedge mounted to a surface of the first waveguide substrate, wherein the first wedge has a first index of refraction and wherein the surface of the first waveguide substrate has a first normal axis, and

a second wedge mounted to a surface of the first wedge, wherein the second wedge has a second index of refraction that is different from the first index of refraction, wherein the surface of the first wedge has a second normal axis, wherein the second normal axis is oriented at a first non-zero angle with respect to the first normal axis within a first plane, and wherein the second normal axis is oriented at a second non-zero angle with respect to the first normal axis within a second plane, the first plane being perpendicular to the second plane; and

a holographic optical element in the grating medium and configured to diffract, out of the waveguide, the light coupled into the grating medium by the prism.

19. The optical system of claim **18**, wherein the surface of the first wedge is curved.

20. The optical system of claim **18**, wherein the prism has a first Abbe number and wherein the grating medium has a second Abbe number that is different from and within 30 of the first Abbe number.

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